

INTERNATIONAL CIVIL AVIATION ORGANIZATION



FINAL REPORT

**SIXTH MEETING OF THE ASIA/PACIFIC WILDLIFE HAZARD MANAGEMENT
WORKING GROUP (AP-WHM WG/6)**

BANGKOK, THAILAND, 14 TO 17 MAY 2024

The views expressed in this Report should be taken as those
of the Meeting and not the Organization

Approved by the Meeting and published by the
ICAO Asia and Pacific Office, Bangkok

TABLE OF CONTENT

	Page
1. Introduction	i-1
2. Attendance	i-1
3. Opening of the Meeting	i-1
4. Officers and Secretariat	i-1
5. Working Arrangements, Language and Documentation	i-1
6. Conclusions and Decisions	i-1
7. Terms of Reference of AP-WHM/WG.....	i-2
8. List of Draft Conclusions and Draft Decisions	i-3

Report on Agenda Items

Agenda Item 1:	Adoption of Agenda	1-1
Agenda Item 2:	Review Outcomes of Relevant Meetings/Seminars	2-1
Agenda Item 3:	Global, Regional and National Guidance/Best Practices on Wildlife Hazard Management	3-1
Agenda Item 4:	Progress Update on Tasks assigned to States and International/ Regional Organizations	4-1
Agenda Item 5:	State's Action Plan for Establishment and Implementation of Wildlife Hazard Management Programme – State's Update.....	5-1
Agenda Item 6:	Any Other Business.....	6-1
Agenda Item 7:	AP-WHM/WG TOR and Task List	7-1
Agenda Item 8:	Date and Venue of Next Meeting	8-1

Appendices to the Report

Appendix A:	ICAO APAC WHM Go Team Assistance Mission Programme
Appendix B:	State's USOAP EI in WHM AGA Area
Appendix C:	Asia/Pacific Generic Guidance Materials and Custodians
Appendix D:	List of experts of AP-WHM/WG
Appendix E:	List of IBIS Focal Points for Asia and Pacific States
Appendix F:	AP-WHM/WG Task List

Attachments to the Report

Attachment A	– List of Participants
Attachment B	– List of Papers

1. Introduction

1.1 The Sixth Meeting of the Asia/Pacific Wildlife Hazard Management Working Group (AP-WHM WG/6) was held in Bangkok, Thailand from 14 to 17 May 2024.

2. Attendance

2.1 The Meeting was attended by 61 participants from 12 Member States, Association of Asia Pacific Airlines (AAPA), The International Federation of Airline Pilot's Associations (IFALPA), World Birdstrike Association (WBA), Mastermark Pte. Ltd. and ICAO. AVEM Insight and Scarecrow Group Ltd. participated as observers.

2.2 The List of Participants is placed at **Attachment A** to this Report.

3. Opening of the meeting

3.1 Mr. Deo Chandra Lal Karn, Chairperson of AP-WHM/WG, welcomed the participants and delivered his opening remarks.

4. Officers and Secretariat

4.1 Mr. Deo Chandra Lal Karn, Chairperson of AP-WHM/WG, presided over the meeting. Dr. Punya Raj Shakya, Regional Officer/AGA, ICAO Asia and Pacific Office, was the Secretary of the Meeting and assisted by Mr. Witsarut Chinwipat, AGA Officer.

5. Working Arrangements, Language and Documentation

5.1 The working language of the meeting was English inclusive of all documentation and this report. There were 10 Working Papers, 14 Information Papers and 6 Presentations considered by the Meeting. A List of Papers and Presentation is included at **Attachment B** to this Report.

6. Conclusions and Decisions

Draft Conclusions, Draft Decisions and Decisions of AP-WHM/WG – Definition

6.1 The AP-WHM/WG recorded its actions in the form of Draft Conclusions, Draft Decisions and Decisions within the following definitions:

- a) **Draft Conclusions** deal with matters that, according to APANPIRG Terms of Reference, require the attention of States, or action by the ICAO in accordance with established procedures;
- b) **Draft Decisions** deal with the matters of concern only to APANPIRG and its contributory bodies; and
- c) **Decisions** of AP-WHM/WG relate solely to matters dealing with the internal working arrangements of the AP-WHM/WG.

7. Terms of Reference of AP-WHM WG

7.1 The second amendment to the Terms of Reference of AP-WHM/WG, approved by the Seventh Meeting of the Aerodrome Operations and Planning Sub Group (AOP/SG/7) (Bangkok, Thailand from 3 to 6 July 2023) includes inter alia the following:

TERMS OF REFERENCE WILDLIFE HAZARD MANAGEMENT WORKING GROUP (WHM/WG) (Second Amendment to AP-WHM/WG's TOR approved by AOP/SG/7)

Objective:

To assist States to establish a National Wildlife Hazard Management Committee and Wildlife Hazard Management Programme.

Scope of works:

To meet the above objectives the Working Group shall carry out the following tasks:

- 1) Develop a model TOR for National Wildlife Hazard Management Committee (NWHMC);
- 2) Monitor the establishment of a National Wildlife Hazard Management Committee by the States;
- 3) Assist in conducting workshop/seminar on Global and Regional Guidance on WHM;
- 4) Develop Asia Pacific Regional Guidance on Wildlife Hazard Management Programme, as needed;
- 5) Share the best practices on the measures adopted by member States/Administrations to prevent wildlife strike hazards at or in the vicinity of aerodromes;
- 6) Develop a performance measurement metrics to evaluate the effectiveness of the implementation of the Wildlife Hazard Management Programme;
- 7) Be consistent with ICAO Annex 14, Volume I – Aerodrome Design and Operations, PANS-Aerodromes (Doc 9981), Doc 9137 Airport Services Manual, Part 3 – Wildlife Hazard Management, ICAO Bird Strike Information System (Doc 9332) and other requirements where applicable;
- 8) Analysis of the regional problems/issues in wildlife hazard management fields;
- 9) Support States with limited resources (human and financial) to enhance their capacity in Wildlife Hazard Management through workshops and technical assistance, such as, ICAO Asia/Pacific WHM Go-Team Mission, as needed;
- 10) Monitor and assist States in the establishment and implementation of National Wildlife Hazard Management Programme; and
- 11) Maintain the register of WHM Experts nominated by States and Industry Partners.

Composition:

The Working Group would be composed of subject matter experts nominated by APAC States / Administrations and International Organization satisfying the criteria:

- (1) Minimum 3 years of work experience in CAA Aerodrome Regulatory Department or NWHMC or in International Organizations or Aerodrome Operations at international airports in wildlife hazard management field;
- (2) Familiar with Annex 14 and related guidance materials (PANS-Aerodromes (Doc 9981); Airport Services Manual (Doc 9137), Part 3 – Wildlife Hazard Management, ICAO Bird Strike Information System (Doc 9332); and
- (3) The nominated expert will continue to be a member for a minimum of three consecutive years.

States in other ICAO regions and industry partners with experience in wildlife hazard management may also be invited to participate in the Working Group.

Conduct of the work and timeframe:

As far as practicable, the work would be carried out through electronic correspondences and web-conferences. The Working Group will hold at least one face-to-face meeting a year. Onsite assistance may be provided to States, if required, on cost-recovery basis through ICAO Asia/Pacific WHM Go-Team missions. The ICAO APAC Office would do necessary coordination. The ICAO COSCAPs will support the implementation of Tasks.

Time frame:

The Working Group would complete its work by September 2026.

8. List of Draft Conclusions, Draft Decisions and Decisions:

Draft Conclusion AP-WHM/WG/6-1: ICAO Asia-Pacific WHM Go-Team Assistance Mission Programme

Draft Decision AP-WHM/WG/6-2: Updated List of Asia/Pacific Generic Guidance Materials Developed by the AP-WHM/WG with Details of the Custodians

Agenda Item 1: Adoption of Provisional Agenda (WP/01)

1.1 The Provisional Agenda presented in WP/01 was adopted as Agenda for the Meeting.

- | | |
|----------------|---|
| Agenda Item 1: | Adoption of agenda |
| Agenda Item 2: | Review outcomes of related Meetings/Seminars |
| Agenda Item 3: | Global, Regional and National Guidance/Best Practices on Wildlife Hazard Management |
| Agenda Item 4: | Progress Update on Tasks assigned to States and International/Regional Organizations |
| Agenda Item 5: | State's Action Plan for Establishment and Implementation of Wildlife Hazard Management Programme – State's Update |
| Agenda Item 6: | Any Other Business |
| Agenda Item 7: | AP-WHM/WG ToR and Task List |
| Agenda Item 8: | Date and Venue of Next Meeting |

— — — — —

Agenda Item 2: Review Outcomes of related Meetings/SeminarsAction Items of 58th Conference of Directors General of Civil Aviation (WP/02)

2.1 AP-WHM/WG/6 meeting reviewed the action items of 58th Conference of Directors General of Civil Aviation (DGCA/58, Dhaka, Bangladesh, 15 to 19 October 2023) relevant to AP-WHM/WG.

Discussion Paper	Action Item	Description
Agenda Item 3: Aviation Safety		
DP/3/03	58/4	<p>To ensure efficient and safe ground operations and prevent incidents and accidents, the Conference:</p> <p>a. Encouraged States/Administrations, International Organizations, Industries and Safety Partners to share their best practices, technologies, and procedures related to aircraft handling, apron management and ground support equipment for enhancing safety Standards; and</p> <p>b. Requested ICAO to continue assistance to the States/Administrations through Guidance Material, seminars, workshops, and training on Runway safety and Wildlife Hazard Management.</p>

2.2 AP-WHM/WG/6 Meeting reminded States/Administrations to take necessary actions in accordance with 58th DGCA Conference Action Items.

2.3 AP-WHM/WG/6 Meeting invited States and International Organizations to submit Working Paper for the forthcoming APAC DGCA Conference in Cebu, Philippines in October 2024 emphasizing the need to incorporate a National Wildlife Hazard Management Programme into the State Safety Programme or WHM related SEIs in National Aviation Safety Plan, as appropriate, and allocate appropriate resources at national and airport level to manage wildlife hazard at or in the vicinity of the airport.

Outcomes of APANPIRG/34 and AOP/SG/7 Meetings (WP/03)

2.4 The Secretariat provided outcomes of AOP/SG/7 (3 to 6 July 2023) and APANPIRG/34 (11 to 13 December 2023) Meetings related to the Asia Pacific Wildlife Hazard Management Working Group (AP-WHM/WG). The Report of AOP/SG/7 and APANPIRG/34 Meetings could be accessed at: <https://www.icao.int/APAC/Meetings/Lists/Meeting%20List%202023/AllItems.aspx>.

2.5 AP-WHM/WG/6 noted that AOP/SG/7 had adopted the following Decision formulated by AP-WHM/WG/5:

Decision AOP/SG/7-9 (AP-WHM/WG/5 - 1): Proposal for Amendment to AP-WHM/WG's TOR		
What:	That, the Terms of Reference of the Asia/Pacific Wildlife Hazard Management Working Group (AP-WHM/WG) be amended as provided in Appendix I to the Report of AOP/SG/7.	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>

Why: To allow additional three years of time for Working Group to focus on the onsite technical assistance to States for establishment of the National Wildlife Hazard Management Committee, Wildlife Hazard Management Programme, conduct new tasks of the TOR, and to provide some flexibility in the mode of meetings amid the aftermath of COVID-19 pandemic.	Follow-up: <input checked="" type="checkbox"/> Required from States
When: 6-Jul-23	Status: Adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input checked="" type="checkbox"/> Other: AP-WHM/WG	

2.6 AP-WHM/WG/6 noted that APANPIRG/34 had adopted the following Conclusion formulated by AP-WHM/WG/5 and endorsed by AOP/SG/7:

Conclusion APANPIRG/34/5: ICAO Asia/Pacific WHM Go-Team Methodology		
What: That,	Expected impact:	
<ul style="list-style-type: none"> The needs for technical assistance in the area of WHM for ICAO APAC States be periodically reviewed; States with such needs be encouraged and invited to host WHM mission; and The methodology for running such Go-Team missions provided in Appendix C to the Report of AOP/SG/7 be adopted by APANPIRG/34. 	<input checked="" type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input checked="" type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical	
Why: To assist States in WHM	Follow-up:	<input checked="" type="checkbox"/> Required from States
When: 13-Dec-23	Status:	Adopted by PIRG
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: AP-WHM/WG		

Agenda Item 3: Global, Regional and National Guidance/Best Practices on Wildlife Hazard ManagementInnovative Techniques for Mitigating Wildlife Hazards at Airports (WP/04)

3.1 Presented by WBA, the WP/04 emphasised the adoption of innovative meaningful techniques to mitigate wildlife hazards at airports, particularly bird/wildlife strikes. Factors contributing to these risks include attractive habitats like grassy areas and water bodies, nearby landfills, migratory patterns, coastal locations, improper grass management, and construction activities. Airports need a comprehensive, meaningful data-driven approach to assess and rank risks and patterns from different species, utilising appropriate and suitable technologies for monitoring wildlife, analysing historical incident data, and understanding seasonal and behavioral patterns. Even though there is no silver bullet, by implementing innovative deterrents, habitat management, and improved communication, airports can significantly reduce wildlife hazards and enhance aviation safety. Airports were encouraged to integrate these technologies/techniques into their programmes to maximise the effectiveness of monitoring and reporting systems. The paper also called for airports to submit case histories of successful initiatives, which would be compiled and shared to promote knowledge exchange and innovation in airport management.

3.2 AP-WHM/WG/6 acknowledged that a wildlife hazard study should be conducted at the planning stage of any new airport and emphasized the requirement of continuous monitoring of wildlife data and continuous update of an airport WHM Plan due to the changes of the birds.

Update from Australian Aviation Wildlife Hazard Group (AAWHG) 2023/24 and International Forum – 13-15 August 2024, Melbourne, Australia (IP/03)

3.3 Presented by Australia, the IP/03 provided a brief 12-month activity summary of the Australian Wildlife strike committee and noted the risks posed to aviation through realization of wildlife hazards is one that reaches all aspects and domains of the aviation system. The hazard is not uniquely an aerodrome problem but is a system-wide problem and through the understanding of this and the integration of the management of this hazard and the associated risk truly effective outcomes could be realised in even the most challenging of environments and across all aviation domains.

3.4 During a very successful AAWHG hosted workshop in October 2023, guidance materials known as Recommended Practices were developed; specifically: ‘Wildlife strike reporting and record keeping’, ‘Wildlife Strike Minimisation (aircraft-based mitigation)’ and ‘Training and competency for ATC’. Additionally, the AAWHG advised that in 2024 an AAWHG International Forum would be held on 13-15 August in Melbourne, Australia at the Melbourne Zoo ([AAWHG 2024 Forum](#)). The theme for this event would be ‘Sharing the Responsibility’ and would feature presentations and speakers from all facets of the aviation industry as well as experts from around the world. It was expected AAWHG would host speakers from North America, Asia and Pacific, Africa and Europe. In addition, international attendees and presenters were also invited to an extra international day on the 12th August 2024.

Hazards, Threats, Risks and Controls – a different perspective for the future (PPT/01)

3.5 A presentation was provided by Australia/the Chair of Australian Aviation Wildlife Hazard Group (AAWHG) covering the latest work of the International Wildlife Hazard Management (WHM) Subject Matter Expert (SME) Group. The Group is a collective of SMEs from around the globe made up of established aviation spheres as well as biology/science who are interested in improving wildlife strike mitigation across all spheres of influence through the re-balancing of the risk equation. This approach stems from an observation that aerodromes are often disproportionately burdened with risk ‘assessment’ rather than concentrating on hazard management and communication when the risk assessment should be considered and calculated by the users of the airspace and/or aerodrome as occurs for weather events or phenomenon like volcanic ash. Ultimately, the outcome the Group would be to

see a rebalance of the risk equation where all stakeholders share in the responsibilities and the safe and efficient outcomes possible in such a system.

3.6 It was hoped that a key item on this pathway into the future would be the production of a Manual, like ICAO Flight Safety and Volcanic Ash (Doc 9974) but instead being Flight Safety and Wildlife Hazard Management. Wildlife Hazard Management is a shared responsibility with each stakeholder owning its risk. WHM is a system-wide problem concerning all aviation stakeholders. Through the understanding of this and the integration of the management of this hazard and the associated risk the aviation system can realise a shared responsibility and therefore a shared safety outcome. This presentation formed the basis for IP/04 detailed below and seeking support to submit a WP to AN-CONF/14.

Proposal to Submit Working Paper on Wildlife Hazard Management to Fourteenth Air Navigation Conference (AN-CONF/14) (IP/04)

3.7 The IP/04 sought support and/or co-sponsorship by likeminded APAC States, and proposed submission of a Working Paper to the AN-CONF/14 on Wildlife Hazard Management with ultimate aim to establish a multi-disciplinary/multi-panel working group to develop best practice guidance on a systemic approach to this hazard. Significant materials exist across ICAO through the various Annexes, PANS and other materials, but the lack of a cross-disciplinary guide, such as Doc 9974 Flight Safety and Volcanic Ash, has resulted in a system that is not as efficient or effective as it could be. Significant support for the proposal appears imminent from other regions and the paper called for support from across the APAC region as well.

Nocturnal Bird/Wildlife Hazard – an Emerging Problem for Airports Operations (IP/05)

3.8 Presented by India, the IP/05 emphasized that aerodrome wildlife hazard could be effectively managed by engaging active control measures during day. However, there is high risk of hazardous situation existing around the aerodrome by the nocturnal birds mainly by fruit bats which is the potential species impacting to aircraft operations. Since these species occupy the dark patches as their movement corridors that often meets on the approach and landing path of the aircrafts, hence making impossible to get any evidence for further investigating the incident. Since there movement is outside of the airport hence the WHM team wouldn't have any clue about the details of the incidents.

3.9 Due to urbanisation around the airport these species are disturbed vastly across, and they are occupying alternative roosting sites, hence they are moving over the airspace often conflicts with aircrafts. This being an emerging and invincible risk which often unattended due to lack of evidence. Hence all the aerodrome operators are to engage adequate monitoring mechanism to assess the inventory of hazardous existing around the aerodrome to engage appropriate mitigation measures to prevent such threats moving on to aircraft movement path.

Best Practices on Wildlife Hazard Management (IP/06)

3.10 India shared best practices adopted by Delhi International Airport Ltd. (DIAL) for wildlife hazard management at Delhi International Airport, which is one of the largest and most complex airports located at New Delhi, India having four active runways (two pairs of parallel dependent runways).

3.11 The airport spreads over an area of 5,500 acres of land and accounts for approx. 1,400 ATMs per day. Despite being located in an urban and second most populated city in the world, the airport is also surrounded by many natural and restored green areas accounting for 22% green cover area. Further, the climate of Delhi is semi-arid, and there is a vast difference between summer and winter temperatures. The green areas and temperature variations ultimately lead to wildlife attractions which is a matter of concern to DIAL as wildlife may enter the airport especially the birds and probabilities are there the birds may get habitual to airport environment.

3.12 Behavioral and food preference study (species wise) was considered to develop mitigation measures. This study resulted into drastic reduction in the bird strike rate of two bird species namely, Red-wattled Lapwing and Indian Rock Pigeon. At DIAL, continuous exchange of knowledge regarding identification of best wildlife mitigation measures at national and international level are also being regularly done to keep everyone ready to avoid bird strikes by placing the best mitigation measures in advance.

Measures undertaken to minimize Jackal Menace at NSCBI Airport, Kolkata (IP/07)

3.13 Presented by India, the IP/07 shared the mitigation measures taken to reduce the jackal menace inside the operational area at one of the oldest civil airports in India, Netaji Subhash Chandra Bose International (NSCBI) Airport Kolkata.

Progress of the ICAO Bird Strike Information System (IBIS) (IP/12)

3.14 Presented by the Secretariat, the IP/12 provided an overview on progress of the ICAO Bird Strike Information System (IBIS).

3.15 AP-WHM/WG/6 noted that the new IBIS Manual (Doc 9332) would be published on Q4 of 2024.

— — — — —

Agenda Item 4: Progress Update on Tasks assigned to States and International/Regional Organizations

ICAO Asia-Pacific Wildlife Hazard Management Go-Team Methodology – Update (WP/05)

4.1 On behalf of the Small Task Force composed of Australia, India, Thailand, ACI & WBA, WP/05 presented by Australia detailed the Wildlife Hazard Management (WHM) Go-Team Mission Programme Document that is required to be attached to the Asia/Pacific WHM Go-Team Methodology which was initially proposed by ACI at AP-WHM/WG/5 via WP/05 in May 2023 and approved by APANPIRG/34 in December 2023 as per recommendation of AOP/SG/7 in July 2023.

4.2 At AP-WHM/WG/5, the Working Group agreed to develop a WHM Go-Team Assistance Mission Programme (Task 5/5) via the AP-WHM/WG Terms of Reference (Second Amendment to AP/WHM-WG ToR) approved by AOP/SG/7. The Assistance Mission Programme/Template for States, known as the ‘Wildlife Hazard Management Go-Team’ approach, is designed for adoption and use by States within the ICAO Asia-Pacific Region. It specifically provides a templated timeline for a 1-week Go-Team mission, supplemented by pre-and post-mission activities and elements. The WHM Go-Team approach focusses particularly on the establishment of national WHM committees and a national WHM programme.

4.3 AP-WHM/WG/6 formulated the following Draft Conclusion for endorsement by AOP/SG/8 and for consideration by APANPIRG/35:

Draft Conclusion AP–WHM/WG/6–1: ICAO Asia-Pacific WHM Go-Team Assistance Mission Programme Document			
What:	That	Expected impact:	
	<ul style="list-style-type: none"> States with needs to enhance WHM be encouraged and invited to host WHM Go-Team Assistance Mission; and The ICAO Asia/Pacific WHM Go Team Assistance Mission Programme Document presented in Appendix A to the Report of AP-WHM/WG/6 be endorsed by AOP/SG/8 for consideration by APANPIRG/35. After approval by APANPIRG/35 the ICAO Asia/Pacific WHM Go Team Assistance Mission Programme Document be included as an Appendix to the ICAO Asia/Pacific WHM Go-Team Methodology and published on ICAO APAC Website. 	<input checked="" type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input checked="" type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical	
Why:	To assist States in WHM	Follow-up:	<input checked="" type="checkbox"/> Required from States
When:	27-Nov-24	Status:	Draft to be adopted by PIRG
Who:	<input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: XXXX		

An Overview of Wildlife Hazard Management Programme Implemented at Greenfield Manohar International Airport, Goa, India (IP/08)

4.4 India shared the aerodrome operator’s experience in establishment and commencement of the Wildlife Hazard Management Programme at the new greenfield airport – Manohar International Airport (MIA), Goa, India. The paper elaborated step by step activities conducted by MIA at Project Planning Phase (Pre-operations Phase), Pre-Licensing Phase and Operations Phase in a way that was easy to understand and follow for the establishment and commencement of the Wildlife Hazard Management Programme at the airport level.

Sharing State's/Aerodrome Operator's Experience in Managing Wildlife Hazard Management Issues (IP/14)

4.5 Presented by Thailand, IP/14 provided a comprehensive overview of Wildlife Hazard Management (WHM) strategies of Thailand. The paper highlighted the Civil Aviation Authority of Thailand's (CAAT) national aviation safety strategy, as outlined in the Thailand Aviation Safety Action Plan (TASAP) under Thailand's State Safety Programme (SSP). This strategy includes the establishment of a dedicated Wildlife Hazard Management Taskforce that emphasizes proactive wildlife risk reduction in collaboration with aviation industry stakeholders.

4.6 The IP/14 (Presentation) detailed how each of Thailand's four aerodrome operators (Department of Airports, Airports of Thailand, Bangkok Airways, and Royal Thai Navy) implements a tailored Airport Wildlife Hazard Management Programme (WHMP). These WHMPs address specific challenges faced by each airport, encompassing aspects like data collection methods, on- and off-aerodrome wildlife hazard management strategies, and even challenges beyond the airport perimeter.

— — — — —

Agenda Item 5: State's Action Plan for Establishment and Implementation of Wildlife Hazard Management Programme – State's Update

State Action Plan for Establishment and Implementation of Wildlife Hazard Management Programme - Update (IP/09)

5.1 The IP/09 presented an update on *India's action plan for establishment and implementation of Wildlife Hazard Management Programme (WHMP)*. The plan focused particularly on the steps taken or being proposed to implement the 16 action items for establishment and implementation of Wildlife Hazard Management Programme in India.

Pakistan's Progress on Action Plan for Establishment and Implementation of the WHMP (PPT/06)

5.2 Pakistan presented its progress report on Development and Implementation of WHMP. Whilst Pakistan successfully implemented elements of action plan, WHM Training remained a concern. For the purpose of capacity building and WHM training, Pakistan indicated its intention to approach International / Regional Organizations. It was also agreed that Pakistan would share further update on the issue in the next meeting of AP-WHM WG.

Monitoring and Reporting of Wildlife Strike using the CAAM Aviation Reporting System (CAREs) (IP/10)

5.3 Presented by Malaysia, the IP/10 focused on monitoring and reporting system for wildlife strikes that Malaysia had developed, detailing the challenges faced during its implementation. It also aimed to explore best practices adopted by other States in the Asia-Pacific Region on this matter.

5.4 CAREs were designed to handle various types of safety occurrence reports serving as a comprehensive platform for collecting and processing different kinds of reports, including wildlife strike reporting. By centralizing the reporting process, CAREs aims to streamline the collection, analysis, and dissemination of safety data.

5.5 The paper also outlined several challenges encountered during the implementation CAREs. Significant challenges highlighted were user training and adoption, awareness of the CAREs and data migration and integration.

Threats Posed by Insects (BEES) at Kuala Lumpur International Airport (KLIA) Terminal 1 & 2 (IP/11)

5.6 Presented by Malaysia, the IP/11 focused on the hazards posed by insects, particularly bees, at Kuala Lumpur International Airport's (KLIA) Terminals 1 and 2. It shed light on the potential risks these insects pose to airport operations, passenger safety, and overall airport infrastructure. Moreover, it discussed the proactive measures undertaken to mitigate these risks.

5.7 The paper also outlined the mitigation plans for wildlife handling and hazard control at KLIA encompassing various strategies aimed at minimizing disruptions and ensuring safety, particularly in incidents involving bees.

— — — — —

Agenda Item 6: Any other BusinessICAO USOAP CMA and AGA Findings in WHM (WP/06)

6.1 AP-WHM/WG/6 noted ICAO USOAP CMA activities conducted in APAC States in 2023 and those planned for 2024.

6.2 The Meeting also noted the USOAP Effective Implementation (EI) scores of the individual APAC States for WHM related PQs derived from iSTARS 4.0, PQ Tester and provided in **Appendix B**. APAC average WHM EI in AGA area was 50.26 % as compared to the global average of 61.83% as of April 2024.

6.3 Table 6.1 below illustrates the APAC Average WHM EI scores for June 2018 and April 2024:

Table 6.1: APAC Average EI Scores for WHM PQs
[Source: USOAP CMA OLF/ iSTARS 4.0 - PQ Tester]

S. No	Year	APAC Av. EI in WHM	Global Av. EI in WHM	Remarks
1	April 2024	50.26 (Adjusted EI)	61.83	5 PQs (2020 USOAP CMA PQ Checklist)
2	June 2018	57.5	–	6 PQs (2017 USOAP CMA PQ Checklist)

6.4 The meeting encouraged APAC States/Administrations with EI less than 80% in WHM related PQs to put more resources and efforts to improve EI to meet the 75% of GASP target by 2024; and to approach respective COSCAPs or ICAO APAC Office, if State(s) require assistance in WHM.

Asia Pacific Guidance Materials and Custodian (WP/07)

6.5 Procedure for periodic review and update of the Asia/Pacific Generic Guidance Materials approved by the AOP/SG/7 and published on ICAO APAC Website at eDocuments under AGA heading could be accessed using URL: <https://www.icao.int/APAC/Pages/eDocs.aspx>. The list of the GGMs developed by the AP-WHM/WG was provided as **Attachment B** to the above procedural document.

6.6 As the Expert Group (Australia, India, Thailand, ACI and WBA) developed the ICAO Asia-Pacific Wildlife Hazard Management Go-Team Assistance Mission Programme (**Appendix A** to the AP-WHM/WG/6 Report), and if endorsed by AOP/SG/8 and APANPIRG/35 it would be required to include in the List of the GGMs as **Attachment B** of the **Appendix C** (Procedure for periodic review and update of the Asia/Pacific Generic Guidance Materials) to the AP-WHM/WG/6 Report.

6.7 AP-WHM/WG/6 Meeting unanimously agreed that Australia would be the custodian of the ICAO Asia-Pacific Wildlife Hazard Management Go-Team Assistance Mission Programme Document.

6.8 AP-WHM/WG/6 formulated the following Draft Decision:

Draft Decision AP-WHM/WG/6 - 2: Updated List of Asia/Pacific Generic Guidance Materials Developed by the AP-WHM/WG with Details of the Custodians		
What: That, the <i>Attachment B</i> to the <i>Procedure for periodic review and update of the Asia/Pacific Generic Guidance Materials (Appendix C</i> to the Report of the AP-WHM/WG/6) be published on the ICAO APAC Website at eDocuments Webpage under the AGA heading after endorsement of the ICAO Asia-Pacific Wildlife Hazard Management Go-Team Assistance Mission Programme Document by AOP/SG/8 and adoption by APANPIRG/34.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical	
Why: To incorporate in the list the ICAO Asia-Pacific Wildlife Hazard Management Go-Team Assistance Mission Programme Document with updated details of the custodian of the GGMs.	Follow-up: <input type="checkbox"/> Required from States	
When: 19-Jul-24	Status: To be adopted by Subgroup	
Who: <input checked="" type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: AP-AA/WG		

Enhancing Aviation Safety and Efficiency: Recommendations for a more Risk Based Approach with Bird Strikes and Runway Closures (WP/10)

6.9 Presented by Association of Asia Pacific Airlines (AAPA), the WP/17 addressed an avenue to enhance aviation safety and efficiency concerns, emphasizing the benefits of an enhanced use of a risk-based approach in determining runway closures arising from reported bird strikes. These measures are essential for minimizing disruptions, ensuring passenger safety, and enhancing overall airport operations. This enhanced aviation safety and efficiency emphasizes the benefits of a risk-based approach to determine runway closures after bird strikes. This is essential for minimal disruptions, passenger safety, and improved airport operations.

List of Experts of Asia/Pacific Wildlife Hazard Management Working Group (IP/02)

6.10 AP-WHM/WG/6 noted the updated list of experts of AP-WHM/WG provided in **Appendix D**.

6.11 The Meeting urged Members of the Working Group to review the list, update the information of the listed experts and provide names and contact details of new WHM Experts nominated by the respective CAA of the State to ICAO APAC Office.

IBIS Focal Points for Asia and Pacific States (IP/13)

6.12 The Secretariat presented the list of ICAO Bird Strike Information System (IBIS) Focal Points of Asia and Pacific States for review and update by the Meeting (**Appendix E**).

6.13 The Meeting urged States to review the list of the IBIS Focal Points of Asia Pacific States and provide additional contact details, if any, for inclusion in the list.

Introduction to ICAO TRAINAIR Plus Airport Wildlife Hazards Courses (PPT/02)

6.14 Mastermark Singapore presented their updated Airport Wildlife Hazard Management and Operations courses to the ICAO AP-WHM WG/6 meeting in Bangkok, Thailand. In collaboration with Embry-Riddle Aeronautical University, these are currently the only ICAO-certified wildlife hazard courses available. Enhanced with two updated modules for local Civil Aviation Authority (CAA) policy makers, they were designed to be practical and relevant for all levels of airport operations, from top management to ground staff. The newly added modules in the management course focused on topics like the international rule-making hierarchy, interpretation of ICAO wildlife hazard documents, development/updating of local guidance material and/or advisory circulars by local CAAs. The streamlined content emphasised fostering cohesion among policy makers, airport operators, and ground operations staff to ensure that policies are realistic and implementable. Their goal is to equip all stakeholders with the necessary knowledge and tools for effective wildlife hazard management, promoting a unified approach to enhance safety and operational efficiency. Both courses are scheduled for November 2024 in Singapore.

6.15 AP-WHM/WG/6 recognized the need for capacity building of States with low USOAP CMA EI in WHM through trainings, seminar or workshops in WHM. It was also discussed to explore the possibility of organising training or workshop in WHM with the support from COSCAPs Programme in the near future.

Wildlife Hazard Management at Suvarnabhumi Airport (PPT/03)

6.16 Wildlife Hazards Control Unit, Suvarnabhumi Airport (BKK) is in Airside Operation Department. BKK has operation staff and outsource staff who operate 24 hours/7 days. BKK has 2 runways and 120 aircraft stands. The responsibilities are to plan and control wildlife hazards environment in the airside or any other wildlife hazards that will endanger the aviation activities, collect data of bird/wildlife strikes report and analyze data and plan to reduce birds and wildlife hazards.

6.17 BKK has established the Bird/Wildlife Strike Control Program and annually reviews to guarantee its continued effectiveness. The program focuses on airside environmental management plan, birds/wildlife control and prevention plan, airside patrolling/repellent plan and bird population survey/relative risk assessment.

6.18 For airside environmental management plan, BKK has focused on the areas that are attractive to birds/wildlife. These include grasslands, waterlogged areas, drainage ditches, ponds, airport buildings, unused structures and waste disposal sites. Additionally, airside personnel are strictly prohibited from feeding birds/wildlife within the airside premises.

6.19 For birds/wildlife control and prevention plan, BKK employs various methods to reduce food sources, breeding site management by preventing birds from nesting and egg removal, using bird repellent gels and installing anti-perching devices to deter birds from perching and roosting on the site, trapping and relocating wildlife, inspecting fences and gates to prevent wildlife from accessing the airside.

6.20 For airside patrolling and repellent plan, BKK conducts regular patrols throughout the day. When birds/wildlife are spotted in the area, the team promptly deploys a range of equipment such as car horns and synthetic sound effects, pyrotechnics and shotguns. BKK also conducts bird population surveys and uses this information for risk assessment.

6.21 For the area outside the airside, BKK surveys the areas cover both within and around the airport perimeter and coordinate with external agencies and local authorities to request land-use data for the purpose of planning prevention measures and reporting to Civil Aviation Authority of Thailand.

Innovative Tool for Airside safety (PPT/05)

6.22 StrykerAV is an airside safety application designed to enhance wildlife hazard management, safety and efficiency in airport operations. It likely includes features such as real-time monitoring of airside activities, runway incursion message alerts, collision avoidance systems, and comprehensive reporting tools for analysing safety incidents. It aims to mitigate risks and improve overall safety standards in airport and airfield environments.

— — — — —

Agenda Item 7: AP-WHM/WG TOR and Task ListAP-WHM/WG Task List (WP/08)

7.1 The AP-WHM/WG/6 Meeting reviewed the Task List, and the updated Task List provided in **Appendix F**.

Agenda Item 8: Date and Venue of Next MeetingProvisional Agenda, Date and Venue of Next Meeting (WP/09)

8.1 The Meeting reviewed the draft agenda proposed by the Secretariat and agreed on the following Provisional Agenda for the AP-WHM/WG/7:

AP-WHM/WG/7**DRAFT PROVISIONAL AGENDA**

Agenda Item 1:	Adoption of agenda
Agenda Item 2:	Review outcomes of related Meetings/Seminars
Agenda Item 3:	Global, Regional and National Guidance/Best Practices on Wildlife Hazard Management
Agenda Item 4:	Progress Update on Tasks assigned to States and International/Regional Organizations
Agenda Item 5:	State's Action Plan for Establishment and Implementation of Wildlife Hazard Management Programme – State's Update
Agenda Item 6:	Any Other Business
Agenda Item 7:	AP-WHM/WG ToR and Task List
Agenda Item 8:	Date and Venue of Next Meeting

8.2 The next meeting of AP-WHM/WG would be held in the last week of April/or early May 2025 for three to five days. The venue proposed was ICAO APAC Office, Bangkok; however, State/Administration interested to host the meeting was requested to contact the Secretariat. The venue of the meeting would be communicated to States/Administrations through ICAO APAC Invitation Letter.

— — — — —

Closing of the Meeting

9.1 Mr. Deo Chandra Lal Karn, Chairperson of the AP-WHM/WG, expressed sincere thanks and appreciation to the participants from States/Administrations, International Organizations (IOs), Speakers, Sponsor and Exhibitor for their contribution and support to AP-WHM/WG/6 Meeting. He also expressed sincere thanks to CAA Thailand and Airports of Thailand for an excellent arrangement for site visit to Suvarnabhumi International Airport and its surroundings for AP-WHM/6 delegates. Mr. Karn thanked the ICAO Secretariat for the excellent preparation of the Meeting.

— — — — —